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=> file biosis caba caplus embase japio lifesci medline scisearch
=> e schofield louis/au
E1
           54
                  SCHOFIELD LORRAINE/AU
                  SCHOFIELD LORRAINE M/AU
E2
            7
E3
          217 --> SCHOFIELD LOUIS/AU
E4
            3 SCHOFIELD LOUIS DR/AU
E5
            7
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E6
           16
                  SCHOFIELD LYN/AU
E7
          212
                  SCHOFIELD M/AU
E8
          88
                  SCHOFIELD M A/AU
E9
            1
                  SCHOFIELD M E/AU
E10
            9
                 SCHOFIELD M G/AU
E11
           24
                  SCHOFIELD M H/AU
E12
          114
                  SCHOFIELD M J/AU
=> s e3-e4 and (malaria or plasmodium)
          199 ("SCHOFIELD LOUIS"/AU OR "SCHOFIELD LOUIS DR"/AU) AND (MALARIA
              OR PLASMODIUM)
=> dup rem 11
PROCESSING COMPLETED FOR L1
            70 DUP REM L1 (129 DUPLICATES REMOVED)
=> s 12 and inositolglycan
            3 L2 AND INOSITOLGLYCAN
=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y
    ANSWER 1 OF 3 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
L3
    1997:212809 BIOSIS <<LOGINID::20090615>>
DN
    PREV199799519313
ΤI
    Signal transduction in macrophages by glycosylphosphatidylinositols of
       ***Plasmodium*** , Trypanosoma, and Leishmania: Activation of protein
    tyrosine kinases and protein kinase C by ***inositolqlycan***
     diacylglycerol moieties.
    Tachado, Souvenir D. [Reprint author]; Gerold, Peter; Schwarz, Ralph;
ΑU
    Novakovic, Suzanna; McConville, Malcolm; ***Schofield, Louis***
CS
    Walter Eliza Hall Inst. Med. Res., VIC 3050, Australia
    Proceedings of the National Academy of Sciences of the United States of
SO
    America, (1997) Vol. 94, No. 8, pp. 4022-4027.
    CODEN: PNASA6. ISSN: 0027-8424.
DT
    Article
    English
LA
ED
    Entered STN: 22 May 1997
    Last Updated on STN: 22 May 1997
    The perturbation of various glycosylphosphatidylinositol (GPI)-anchored
AB
     surface proteins imparts profound regulatory signals to macrophages,
     lymphocytes and other cell types. The specific contribution of the GPI
    moieties to these events however is unclear. This study demonstrates that
    purified GPIs of ***Plasmodium*** falciparum, Trypanosoma brucei, and
     Leishmania mexicana origin are sufficient to initiate signal transduction
     when added alone to host cells as chemically defined agonists. GPIs (10
     nM-1 mu-M) induce rapid activation of the protein tyrosine kinase (PTK)
    p59-hck in macrophages. The minimal structural requirement for PTK
     activation is the evolutionarily conserved core glycan sequence
    Man-alpha-1-2Man-alpha-1-6Man-alpha-1-4GlcN1-6myo-inositol.
    GPI-associated diacylglycerols independently activate the
     calcium-independent epsilon isoform of protein kinase C. Both signals
```

collaborate in regulating the downstream NF-kappa-B/rel-dependent gene expression of interleukin 1-alpha, tumor necrosis factor (TNF) alpha, and

inducible NO synthase. The alkylacyl-glycerol-containing iM4 GIPL of L. mexicana, however, is unable to activate protein kinase C and inhibits TNF expression in response to other agonists, establishing signaling specificity among structurally distinct GPIs. GPI alone appears \*\*\*malaria\*\*\* sufficient to mimic the activities of parasite extracts in the signaling pathway leading to TNF expression. A mAb to GPI blocks TNF induction by parasite extracts indicating that GPI is a necessary agent in this response. As protozoal GPIs are closely related to their mammalian counterparts, the data indicate that GPIs do indeed constitute a novel outside-in signaling system, acting as both agonists and second messenger substrates, and imparting at least two separate signals through the structurally distinct glycan and fatty acid domains. These activities may underlie aspects of pathology and immune regulation in protozoal infections.

- TI Signal transduction in macrophages by glycosylphosphatidylinositols of \*\*\*Plasmodium\*\*\* , Trypanosoma, and Leishmania: Activation of protein tyrosine kinases and protein kinase C by \*\*\*inositolglycan\*\*\* and diacylglycerol moieties.
- AU Tachado, Souvenir D. [Reprint author]; Gerold, Peter; Schwarz, Ralph; Novakovic, Suzanna; McConville, Malcolm; \*\*\*Schofield, Louis\*\*\*
- AB. . . The specific contribution of the GPI moieties to these events however is unclear. This study demonstrates that purified GPIs of \*\*\*Plasmodium\*\*\* falciparum, Trypanosoma brucei, and Leishmania mexicana

origin are sufficient to initiate signal transduction when added alone to host cells as. . . response to other agonists, establishing signaling specificity among structurally distinct GPIs. GPI alone appears sufficient to mimic the activities of \*\*\*malaria\*\*\* parasite extracts in the signaling pathway leading to TNF expression. A mAb to GPI blocks TNF induction by parasite extracts. . .

IT Miscellaneous Descriptors

ACTIVATION; BLOOD AND LYMPHATICS; CELL BIOLOGY; ENZYMOLOGY;
LEISHMANIA-MEXICANA GLYCOSYLPHOSPHATIDYLINOSITOL; MACROPHAGE; PARASITE;

\*\*\*PLASMODIUM\*\*\* -FALCIPARUM GLYCOSYLPHOSPHATIDYLINOSITOL; PROTEIN
KINASE C; PROTEIN TYROSINE KINASES; SIGNAL TRANSDUCTION; SIGNAL
TRANSDUCTION INITIATOR; STRUCTURE-ACTIVITY RELATIONSHIP;
TRYPANOSOMA-BRUCEI GLYCOSYLPHOSPHATIDYLINOSITOL

ORGN . . .

Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

ORGN Classifier

Sporozoa 35400

Super Taxa

Protozoa; Invertebrata; Animalia

Organism Name

\*\*\*Plasmodium\*\*\* falciparum

Taxa Notes

Animals, Invertebrates, Microorganisms, Protozoans

- L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
- AN 2004:101015 CAPLUS <<LOGINID::20090615>>
- DN 140:144698

against \*\*\*malaria\*\*\*

IN \*\*\*Schofield, Louis\*\*\*

PA The Walter and Eliza Hall Institute of Medical Research, Australia

SO PCT Int. Appl., 134 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PA:	ENT :	NO.			KINI	D	DATE			APPL	ICAT	ION I	DATE				
ΡI	WO	2004011026				A1		20040205		WO 2003-AU944					20030725			
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
			PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,
			TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW			
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			KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
			FΙ,	FR,	GB,	GR,	HU,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
			BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	${ m ML}$ ,	MR,	ΝE,	SN,	TD,	ΤG
	CA	2493782 2003245127 2003245127 2003012985 1545599			A1 20040216 B2 20071129			0205		CA 2	003-	2493	20030725 20030725					
										AU 2	003-	2451.						
	ΑU							1129										
	BR								BR 2	003-	1298		20030725					
	EΡ				A1	20050629			EP 2003-737755						20030725			
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
	CN	1681529 2005DN00671 20060147476				Α		20051012			CN 2	003-	8217					
	ΙN										IN 2	005-	DN67					
	US					A1		20060706			US 2	005-	5224					
	IN 2007DN03027										IN 2	007-	DN30.		2	0070	423	
PRAI	US 2002-398607P WO 2003-AU944					Р		2002	0726									
							2003											
	ΙN	2005		А3		2005	0221											

AB The present invention relates generally to a method of eliciting or otherwise inducing an immune response to a microorganism and compns. for use therein. More particularly, the present invention relates to a method of inducing an immune response to a parasite utilizing an immunogenic compn. comprising a glycosylphosphatidylinositol (referred to herein as 'GPI') \*\*\*inositolglycan\*\*\* domain or its deriv. or equiv. The present invention is useful, inter alia, as a prophylactic and/or therapeutic treatment for microorganism infections of mammals such as, for example, parasite infections and in particular infection by

\*\*\*Plasmodium\*\*\* species. In another aspect the invention provides a method of diagnosing, monitoring, screening for or otherwise qual. or quant. assessing an immune response to a microorganism and, in particular, a parasite. More particularly, this aspect of the present invention is directed to assessing said immune response utilizing a GPI

\*\*\*inositolglycan\*\*\* domain or its deriv. or equiv. The development of this aspect of the present invention facilitates, inter alia, the qual. and/or quant. anal. of anti-GPI antibodies in a biol. sample, the identification and/or isolation of unique specificities of antibodies (such as those which bind a parasite derived toxin or the parasite itself), epitope specific screening or the rational design of immunogenic mols. and the generation , thereby, of functionally effective immunointeractive mols.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
Immunogenic compositions comprising ***inositolglycan*** domain of
      ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
therapy
    against
             ***malaria***
ΤN
      ***Schofield, Louis***
AB
     . . . of inducing an immune response to a parasite utilizing an
     immunogenic compn. comprising a glycosylphosphatidylinositol (referred to
     herein as 'GPI') ***inositolglycan*** domain or its deriv. or equiv.
     The present invention is useful, inter alia, as a prophylactic and/or
     therapeutic treatment for microorganism infections of mammals such as, for
     example, parasite infections and in particular infection by
      ***Plasmodium*** species. In another aspect the invention provides a
    method of diagnosing, monitoring, screening for or otherwise qual. or
    quant. assessing. . . a parasite. More particularly, this aspect of
    the present invention is directed to assessing said immune response
     utilizing a GPI ***inositolglycan*** domain or its deriv. or equiv.
     The development of this aspect of the present invention facilitates, inter
     alia, the qual.. . .
                            ***inositolglycan*** domain ***malaria***
    glycophosphoinositides
ST
    immunogen vaccine antigen immunodiagnosis immunotherapy
ΙT
    Antigens
    RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (MSA-3 (merozoite surface antigen 3); immunogenic compns. comprising
         ***inositolqlycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
ΤТ
    Antigens
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (MSA-4 (merozoite surface antigen 4); immunogenic compns. comprising
         ***inositolqlycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
ΙT
    Antigens
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PUR
     (Purification or recovery); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (MSP-2 (merozoite surface protein 2); immunogenic compns. comprising
         ***inositolglycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
ΙT
    Vaccines
        (antimalarial; immunogenic compns. comprising ***inositolglycan***
        domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΙT
    Samples
        (biol.; immunogenic compns. comprising ***inositolglycan***
        of ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
                         ***malaria*** )
       therapy against
ΤT
     Drug delivery systems
        (carriers; immunogenic compns. comprising ***inositolqlycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
    Lipids, biological studies
IT
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TΙ

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RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (domain; immunogenic compns. comprising ***inositolglycan***
            ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       of
                        ***malaria*** )
       therapy against
ΙT
    Diagnosis
        (immunodiagnosis; immunogenic compns. comprising ***inositolqlycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΙT
    Epitopes
     Immunotherapy
     Infection
        ***Malaria***
    Microorganism
    Parasite
         ***Plasmodium***
                           (malarial genus)
         ***Plasmodium***
                          falciparum
     Test kits
    Vaccines
        (immunogenic compns. comprising
                                        ***inositolglycan***
          ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
                        ***malaria*** )
       therapy against
    Antibodies and Immunoglobulins
ΙT
    RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic
    use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
        (immunogenic compns. comprising ***inositolglycan*** domain of
          ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
ΙT
    Antigens
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (immunogenic compns. comprising ***inositolglycan*** domain of
          ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
    MSP-1 (protein)
ΤT
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PUR
     (Purification or recovery); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (immunogenic compns. comprising ***inositolglycan***
          ^{***Plasmodium***} -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
ΤТ
    Molecules
        (immunoreactive; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
                                     ***malaria*** )
       diagnosis and therapy against
ΤТ
    Oligosaccharides, biological studies
     Polysaccharides, biological studies
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (inositol; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
TΤ
    Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (monoclonal; immunogenic compns. comprising ***inositolglycan***
```

```
domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
    Glycolipoproteins
    RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
    DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
       (phosphatidylinositol-contq., malarial antigen; immunogenic compns.
       comprising ***inositolglycan*** domain of ***Plasmodium***
       -derived glycophosphoinositide for diagnosis and therapy against
         ***malaria*** )
ΙT
    Glycophospholipids
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (phosphatidylinositol-contg.; immunogenic compns. comprising
         ***inositolglycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
ΙT
    Drug design
       (rational; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΤT
    Drug screening
       (vaccine; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΤТ
    Antimalarials
       (vaccines; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
    142921-61-7 149864-49-3 154718-48-6 460095-54-9 460095-54-9D,
IT
              653601-83-3D, amino acid derivs. 653601-84-4 653601-85-5D,
    derivs.
              653601-86-6D, derivs. 653601-87-7 653601-88-8D, derivs.
    derivs.
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (immunogenic compns. comprising ***inositolglycan*** domain of
         ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
                       ***malaria*** )
       therapy against
    ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
L3
    2000:190951 CAPLUS <<LOGINID::20090615>>
AN
DN
    132:235899
    Immunogenic compositions and uses thereof
TΤ
      ***Schofield, Louis***
ΤN
PΑ
    The Walter and Eliza Hall Institute of Medical Research, Australia
    PCT Int. Appl., 101 pp.
    CODEN: PIXXD2
DТ
    Patent
    English
FAN.CNT 1
                                        APPLICATION NO.
                      KIND DATE
    PATENT NO.
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                              ----
                                         _____
                       A1 20000323 WO 1999-AU770
PΙ
    WO 2000015254
                                                               19990914
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
            CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
            IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
            MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
            SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
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RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                               20000403
    AU 9958420
                                         AU 1999-58420
                         Α
                                                                  19990914
    AU 766837
                               20031023
                         В2
                               20010711 EP 1999-945777
    EP 1113815
                         Α1
                                                                  19990914
     EP 1113815
                         В1
                               20070905
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
PRAI AU 1998-5893
                         Α
                               19980914
    WO 1999-AU770
                         W
                               19990914
    The present invention relates generally to a method of eliciting or
AB
     otherwise inducing an effective immune response to a micro-organism and
     compns. for use therein. More particularly, the present invention relates
     to a method of inducing an immune response to a parasite utilizing an
     immunogenic compn. comprising a glycosylphosphatidylinositol (referred to
     herein as "GPI") ***inositolglycan*** domain or its derivs. Even more
    particularly, the present invention contemplates an immunogenic compn.
                    ***Plasmodium*** falciparum GPI ***inositolglycan***
     comprising the
     domain or its derivs. The present invention is useful, inter alia , as a
    prophylactic and/or therapeutic treatment for disease conditions such as,
     for example, infection by parasites and in particular infection by
      ***Plasmodium*** species.
             THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 12
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ***Schofield, Louis***
ΤN
AB
     . . . of inducing an immune response to a parasite utilizing an
     immunogenic compn. comprising a glycosylphosphatidylinositol (referred to
     herein as "GPI") ***inositolglycan*** domain or its derivs. Even more
    particularly, the present invention contemplates an immunogenic compn.
     comprising the ***Plasmodium*** falciparum GPI
                                                        ***inositolglycan***
     domain or its derivs. The present invention is useful, inter alia , as a
     prophylactic and/or therapeutic treatment for disease conditions such as,
     for example, infection by parasites and in particular infection by
       ***Plasmodium*** species.
    vaccine ***Plasmodium***
                                falciparum glycosylphosphatidylinositol
ST
      ***inositolglycan*** domain
    Proteins, specific or class
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (MSP-2 (major merozoite surface protein 2); immunogenic compns.
                    ***inositolglycan*** domain of
       comprising
       glycosylphosphatidylinositol-anchored antigen for vaccine against
       microorganism or ***Plasmodium*** infection)
ΙT
    Antiserums
     Drug delivery systems
         ***Malaria***
     Mammal (Mammalia)
    Microorganism
     Parasite
        ***Plasmodium***
                           (malarial genus)
        ***Plasmodium***
                           falciparum
    Vaccines
        (immunogenic compns. comprising ***inositolqlycan***
       qlycosylphosphatidylinositol-anchored antigen for vaccine against
       microorganism or ***Plasmodium*** infection)
ΙT
    Antibodies
```

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RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
        (immunogenic compns. comprising
                                       ***inositolglycan*** domain of
       qlycosylphosphatidylinositol-anchored antigen for vaccine against
       microorganism or ***Plasmodium*** infection)
ΤТ
    Antigens
    MSP-1 (protein)
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (immunogenic compns. comprising
                                       ***inositolglycan***
       glycosylphosphatidylinositol-anchored antigen for vaccine against
                         ***Plasmodium***
       microorganism or
                                            infection)
    Oligosaccharides, biological studies
    Polysaccharides, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (inositol; immunogenic compns. comprising ***inositolglycan***
       domain of glycosylphosphatidylinositol-anchored antigen for vaccine
       against microorganism or ***Plasmodium*** infection)
ΙT
    Antibodies
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
        (monoclonal; immunogenic compns. comprising ***inositolglycan***
       domain of glycosylphosphatidylinositol-anchored antigen for vaccine
       against microorganism or ***Plasmodium***
                                                    infection)
    Glycolipoproteins
ΤТ
    Glycophospholipids
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (phosphatidylinositol-contg.; immunogenic compns. comprising
         ***inositolglycan*** domain of glycosylphosphatidylinositol-anchored
       antigen for vaccine against microorganism or ***Plasmodium***
       infection)
     261757-36-2D, ethanolamine-phosphate derivs.
ΤТ
     RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (immunogenic compns. comprising ***inositolqlycan***
       glycosylphosphatidylinositol-anchored antigen for vaccine against
       microorganism or ***Plasmodium*** infection)
=> s (malaria or plasmodium) and inositolglycan
           13 (MALARIA OR PLASMODIUM) AND INOSITOLGLYCAN
L4
=> dup rem 14
PROCESSING COMPLETED FOR L4
             4 DUP REM L4 (9 DUPLICATES REMOVED)
=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):y
    ANSWER 1 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN
L5
    AN
DN
    140:144698
    Immunogenic compositions comprising ***inositolglycan*** domain of
      ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
therapy
```

against \*\*\*malaria\*\*\* Schofield, Louis PΑ The Walter and Eliza Hall Institute of Medical Research, Australia PCT Int. Appl., 134 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 1 MANUAL PARE ADDITORNAMAN NO

ΙN

	PAT	CENT 1	NO.			KIND DATE			APPLICATION NO.						DATE				
ΡI	WO									WO 2003-AU944					20030725				
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NΙ,	NO,	NΖ,	OM,	
			PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,	
			TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW				
		RW:	GH,	GM,	ΚE,	LS,	MW,	${ m MZ}$ ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
			KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
			FI,	FR,	GB,	GR,	HU,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,	
			BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	$\mathrm{ML}_{m{\prime}}$	MR,	ΝE,	SN,	TD,	ΤG	
	CA	2493782 2003245127 2003245127 2003012985 1545599				A1 2004020			0205	1	CA 2	003-	2493	20030725					
					B2 20071129					AU 2	003-	2451.	20030725						
	BR								BR 2	003-	1298	20030725							
	ΕP					A1				EP 2003-737755						20030725			
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,	
								RO,					,						
		1681529													20030725				
		2005			20090403								20050221						
	US 20060147476					A1	20060706			US 2005-522494									
	ΙN	2007DN03027			А	20070817				IN 2	007-	DN30.		2	0070	423			
PRAI		2002						2002											
		2003						20030725											
IN 2005-DN671					А3		2005	0221											

The present invention relates generally to a method of eliciting or AΒ otherwise inducing an immune response to a microorganism and compns. for use therein. More particularly, the present invention relates to a method of inducing an immune response to a parasite utilizing an immunogenic compn. comprising a glycosylphosphatidylinositol (referred to herein as 'GPI') \*\*\*inositolglycan\*\*\* domain or its deriv. or equiv. The present invention is useful, inter alia, as a prophylactic and/or therapeutic treatment for microorganism infections of mammals such as, for example, parasite infections and in particular infection by

\*\*\*Plasmodium\*\*\* species. In another aspect the invention provides a method of diagnosing, monitoring, screening for or otherwise qual. or quant. assessing an immune response to a microorganism and, in particular, a parasite. More particularly, this aspect of the present invention is directed to assessing said immune response utilizing a GPI

\*\*\*inositolglycan\*\*\* domain or its deriv. or equiv. The development of this aspect of the present invention facilitates, inter alia, the qual. and/or quant. anal. of anti-GPI antibodies in a biol. sample, the identification and/or isolation of unique specificities of antibodies (such as those which bind a parasite derived toxin or the parasite itself), epitope specific screening or the rational design of immunogenic mols. and the generation , thereby, of functionally effective immunointeractive mols.

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THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 4
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    Immunogenic compositions comprising ***inositolqlycan***
      ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
therapy
    against ***malaria***
AB
     . . of inducing an immune response to a parasite utilizing an
     immunogenic compn. comprising a glycosylphosphatidylinositol (referred to
     herein as 'GPI') ***inositolglycan*** domain or its deriv. or equiv.
     The present invention is useful, inter alia, as a prophylactic and/or
     therapeutic treatment for microorganism infections of mammals such as, for
     example, parasite infections and in particular infection by
      ***Plasmodium*** species. In another aspect the invention provides a
    method of diagnosing, monitoring, screening for or otherwise qual. or
     quant. assessing. . . a parasite. More particularly, this aspect of
     the present invention is directed to assessing said immune response
     utilizing a GPI ***inositolglycan*** domain or its deriv. or equiv.
     The development of this aspect of the present invention facilitates, inter
     alia, the qual.. . .
                             ***inositolglycan***
ST
    glycophosphoinositides
                                                  domain
                                                             ***malaria***
    immunogen vaccine antigen immunodiagnosis immunotherapy
ΤТ
    Antigens
    RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (MSA-3 (merozoite surface antigen 3); immunogenic compns. comprising
         ***inositolqlycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
    Antigens
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (MSA-4 (merozoite surface antigen 4); immunogenic compns. comprising
         ***inositolglycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
IT
    Antigens
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PUR
     (Purification or recovery); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (MSP-2 (merozoite surface protein 2); immunogenic compns. comprising
         ***inositolqlycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
ΤТ
    Vaccines
        (antimalarial; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
IT
    Samples
        (biol.; immunogenic compns. comprising ***inositolqlycan***
        of ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
                        ***malaria*** )
       therapy against
ΙT
    Drug delivery systems
        (carriers; immunogenic compns. comprising ***inositolqlycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
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ΙT
    Lipids, biological studies
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (domain; immunogenic compns. comprising ***inositolglycan*** domain
            ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
ΙT
    Diagnosis
        (immunodiagnosis; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΙT
    Epitopes
    Immunotherapy
     Infection
        ***Malaria***
    Microorganism
    Parasite
         ***Plasmodium***
                           (malarial genus)
         ***Plasmodium***
                          falciparum
     Test kits
    Vaccines
        (immunogenic compns. comprising ***inositolglycan***
          ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
    Antibodies and Immunoglobulins
    RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic
     use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
        (immunogenic compns. comprising ***inositolqlycan*** domain of
          {\rm ***Plasmodium***} -derived glycophosphoinositide for diagnosis and
                       ***malaria*** )
       therapy against
ΙT
    Antigens
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (immunogenic compns. comprising ***inositolglycan*** domain of
          ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
    MSP-1 (protein)
ΤT
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PUR
     (Purification or recovery); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
                                        ***inositolglycan***
        (immunogenic compns. comprising
          ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
ΤТ
    Molecules
        (immunoreactive; immunogenic compns. comprising
                                                        ***inositolqlycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
IT
    Oligosaccharides, biological studies
     Polysaccharides, biological studies
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (inositol; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΤT
    Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
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(monoclonal; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΙT
    Glycolipoproteins
    RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
    DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (phosphatidylinositol-contq., malarial antigen; immunogenic compns.
       comprising ***inositolglycan*** domain of ***Plasmodium***
       -derived glycophosphoinositide for diagnosis and therapy against
         ***malaria*** )
    Glycophospholipids
ΙT
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (phosphatidylinositol-contg.; immunogenic compns. comprising
         ***inositolglycan*** domain of ***Plasmodium*** -derived
       glycophosphoinositide for diagnosis and therapy against ***malaria***
ΤТ
    Drug design
       (rational; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΙT
    Drug screening
       (vaccine; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
ΙT
    Antimalarials
       (vaccines; immunogenic compns. comprising ***inositolglycan***
       domain of ***Plasmodium*** -derived glycophosphoinositide for
       diagnosis and therapy against ***malaria*** )
    142921-61-7 149864-49-3 154718-48-6 460095-54-9
                                                         460095-54-9D,
ΙT
    derivs. 653601-83-3D, amino acid derivs. 653601-84-4 653601-85-5D,
    derivs. 653601-86-6D, derivs. 653601-87-7 653601-88-8D, derivs.
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (immunogenic compns. comprising ***inositolqlycan*** domain of
         ***Plasmodium*** -derived glycophosphoinositide for diagnosis and
       therapy against ***malaria*** )
L5
    ANSWER 2 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN
    2000:190951 CAPLUS <<LOGINID::20090615>>
    132:235899
DN
    Immunogenic compositions and uses thereof
ΤI
ΙN
    Schofield, Louis
    The Walter and Eliza Hall Institute of Medical Research, Australia
PΑ
SO
    PCT Int. Appl., 101 pp.
    CODEN: PIXXD2
DT
    Patent
    English
LA
FAN.CNT 1
    PATENT NO.
                                        APPLICATION NO.
                     KIND DATE
                       A1 20000323 WO 1999-AU770
    WO 2000015254
                                                               19990914
PΤ
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
            CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
            IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
            MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
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SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    AU 9958420
                               20000403 AU 1999-58420
                         Α
                                                                  19990914
    AU 766837
                         В2
                               20031023
    EP 1113815
                         Α1
                               20010711
                                          EP 1999-945777
                                                                  19990914
    EP 1113815
                         В1
                               20070905
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
PRAI AU 1998-5893
                         Α
                               19980914
    WO 1999-AU770
                         W
                               19990914
AΒ
     The present invention relates generally to a method of eliciting or
     otherwise inducing an effective immune response to a micro-organism and
     compns. for use therein. More particularly, the present invention relates
     to a method of inducing an immune response to a parasite utilizing an
     immunogenic compn. comprising a glycosylphosphatidylinositol (referred to
     herein as "GPI") ***inositolglycan*** domain or its derivs. Even more
    particularly, the present invention contemplates an immunogenic compn.
     comprising the ***Plasmodium*** falciparum GPI
                                                        ***inositolglycan***
     domain or its derivs. The present invention is useful, inter alia , as a
     prophylactic and/or therapeutic treatment for disease conditions such as,
     for example, infection by parasites and in particular infection by
      ***Plasmodium*** species.
             THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 12
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     . . . of inducing an immune response to a parasite utilizing an
     immunogenic compn. comprising a glycosylphosphatidylinositol (referred to
     herein as "GPI") ***inositolglycan*** domain or its derivs. Even more
     particularly, the present invention contemplates an immunogenic compn.
     comprising the ***Plasmodium*** falciparum GPI
                                                        ***inositolglycan***
     domain or its derivs. The present invention is useful, inter alia , as a
     prophylactic and/or therapeutic treatment for disease conditions such as,
     for example, infection by parasites and in particular infection by
       ***Plasmodium*** species.
    vaccine ***Plasmodium***
                                falciparum glycosylphosphatidylinositol
ST
                            domain
      ***inositolglycan***
ΙT
    Proteins, specific or class
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (MSP-2 (major merozoite surface protein 2); immunogenic compns.
                    ***inositolglycan*** domain of
       comprising
       glycosylphosphatidylinositol-anchored antigen for vaccine against
       microorganism or ***Plasmodium*** infection)
ΙT
    Antiserums
     Drug delivery systems
         ***Malaria***
     Mammal (Mammalia)
    Microorganism
     Parasite
        ***Plasmodium***
                           (malarial genus)
        ***Plasmodium***
                           falciparum
    Vaccines
        (immunogenic compns. comprising ***inositolqlycan***
       qlycosylphosphatidylinositol-anchored antigen for vaccine against
       microorganism or ***Plasmodium*** infection)
ΙT
    Antibodies
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RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
   (immunogenic compns. comprising
                                   ***inositolglycan*** domain of
   qlycosylphosphatidylinositol-anchored antigen for vaccine against
   microorganism or ***Plasmodium***
                                       infection)
Antigens
MSP-1 (protein)
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
   (immunogenic compns. comprising
                                   ***inositolglycan***
   glycosylphosphatidylinositol-anchored antigen for vaccine against
                     ***Plasmodium***
   microorganism or
                                        infection)
Oligosaccharides, biological studies
Polysaccharides, biological studies
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
   (inositol; immunogenic compns. comprising
                                             ***inositolqlycan***
   domain of glycosylphosphatidylinositol-anchored antigen for vaccine
   against microorganism or ***Plasmodium*** infection)
Antibodies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
   (monoclonal; immunogenic compns. comprising ***inositolqlycan***
   domain of glycosylphosphatidylinositol-anchored antigen for vaccine
   against microorganism or ***Plasmodium***
                                                 infection)
Glycolipoproteins
Glycophospholipids
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
   (phosphatidylinositol-contg.; immunogenic compns. comprising
     ***inositolglycan***
                           domain of glycosylphosphatidylinositol-anchored
   antigen for vaccine against microorganism or ***Plasmodium***
   infection)
261757-36-2D, ethanolamine-phosphate derivs.
RL: BSU (Biological study, unclassified); PRP (Properties); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
   (immunogenic compns. comprising ***inositolglycan***
   qlycosylphosphatidylinositol-anchored antigen for vaccine against
   microorganism or ***Plasmodium***
                                        infection)
ANSWER 3 OF 4 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
DUPLICATE 1
1997:212809 BIOSIS <<LOGINID::20090615>>
PREV199799519313
Signal transduction in macrophages by glycosylphosphatidylinositols of
  ***Plasmodium*** , Trypanosoma, and Leishmania: Activation of protein
tyrosine kinases and protein kinase C by ***inositolglycan***
diacylglycerol moieties.
Tachado, Souvenir D. [Reprint author]; Gerold, Peter; Schwarz, Ralph;
Novakovic, Suzanna; McConville, Malcolm; Schofield, Louis
Walter Eliza Hall Inst. Med. Res., VIC 3050, Australia
Proceedings of the National Academy of Sciences of the United States of
America, (1997) Vol. 94, No. 8, pp. 4022-4027.
CODEN: PNASA6. ISSN: 0027-8424.
Article
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ΤТ

ΙT

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ΤТ

ΙT

L5

AN DN

TΙ

ΑU

CS

SO

DT

LA

ED

English

Entered STN: 22 May 1997

Last Updated on STN: 22 May 1997

- AΒ The perturbation of various glycosylphosphatidylinositol (GPI)-anchored surface proteins imparts profound regulatory signals to macrophages, lymphocytes and other cell types. The specific contribution of the GPI moieties to these events however is unclear. This study demonstrates that purified GPIs of \*\*\*Plasmodium\*\*\* falciparum, Trypanosoma brucei, and Leishmania mexicana origin are sufficient to initiate signal transduction when added alone to host cells as chemically defined agonists. GPIs (10 nM-1 mu-M) induce rapid activation of the protein tyrosine kinase (PTK) p59-hck in macrophages. The minimal structural requirement for PTK activation is the evolutionarily conserved core glycan sequence Man-alpha-1-2Man-alpha-1-6Man-alpha-1-4GlcN1-6myo-inositol. GPI-associated diacylglycerols independently activate the calcium-independent epsilon isoform of protein kinase C. Both signals collaborate in regulating the downstream NF-kappa-B/rel-dependent gene expression of interleukin 1-alpha, tumor necrosis factor (TNF) alpha, and inducible NO synthase. The alkylacyl-glycerol-containing iM4 GIPL of L. mexicana, however, is unable to activate protein kinase C and inhibits TNF expression in response to other agonists, establishing signaling specificity among structurally distinct GPIs. GPI alone appears \*\*\*malaria\*\*\* parasite extracts sufficient to mimic the activities of in the signaling pathway leading to TNF expression. A mAb to GPI blocks TNF induction by parasite extracts indicating that GPI is a necessary agent in this response. As protozoal GPIs are closely related to their mammalian counterparts, the data indicate that GPIs do indeed constitute a novel outside-in signaling system, acting as both agonists and second messenger substrates, and imparting at least two separate signals through the structurally distinct glycan and fatty acid domains. These activities may underlie aspects of pathology and immune regulation in protozoal infections.
- TI Signal transduction in macrophages by glycosylphosphatidylinositols of \*\*\*Plasmodium\*\*\* , Trypanosoma, and Leishmania: Activation of protein tyrosine kinases and protein kinase C by \*\*\*inositolglycan\*\*\* and diacylglycerol moieties.
- AB. . . The specific contribution of the GPI moieties to these events however is unclear. This study demonstrates that purified GPIs of \*\*\*Plasmodium\*\*\* falciparum, Trypanosoma brucei, and Leishmania mexicana

origin are sufficient to initiate signal transduction when added alone to host cells as. . . response to other agonists, establishing signaling specificity among structurally distinct GPIs. GPI alone appears sufficient to mimic the activities of \*\*\*malaria\*\*\* parasite extracts in the signaling pathway leading to TNF expression. A mAb to GPI blocks TNF induction by parasite extracts. .

IT Miscellaneous Descriptors

ACTIVATION; BLOOD AND LYMPHATICS; CELL BIOLOGY; ENZYMOLOGY;
LEISHMANIA-MEXICANA GLYCOSYLPHOSPHATIDYLINOSITOL; MACROPHAGE; PARASITE;
\*\*\*PLASMODIUM\*\*\* -FALCIPARUM GLYCOSYLPHOSPHATIDYLINOSITOL; PROTEIN
KINASE C; PROTEIN TYROSINE KINASES; SIGNAL TRANSDUCTION; SIGNAL
TRANSDUCTION INITIATOR; STRUCTURE-ACTIVITY RELATIONSHIP;
TRYPANOSOMA-BRUCEI GLYCOSYLPHOSPHATIDYLINOSITOL

ORGN . .

Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

ORGN Classifier

Sporozoa 35400

Super Taxa

Protozoa; Invertebrata; Animalia Organism Name

\*\*\*Plasmodium\*\*\* falciparum

Taxa Notes

Animals, Invertebrates, Microorganisms, Protozoans

- L5 ANSWER 4 OF 4 CABA COPYRIGHT 2009 CABI on STN DUPLICATE 2
- AN 95:19012 CABA <<LOGINID::20090615>>
- DN 19940807201
- TI Neutralizing monoclonal antibodies to glycosylphosphatidylinositol, the dominant TNF-[alpha]-inducing toxin of \*\*\*Plasmodium\*\*\* falciparum: prospects for the immunotherapy of severe \*\*\*malaria\*\*\*
- AU Schofield, L.; Vivas, L.; Hackett, F.; Gerold, P.; Schwarz, R. T.; Tachado, S.
- CS National Institute for Medical Research, Mill Hill, London NW7 1AA, UK.
- SO Annals of Tropical Medicine and Parasitology, (1993) Vol. 87, No. 6, pp. 617-626. 29 ref.

Price: Conference paper; Journal article .

Meeting Info.: Immunity to parasites: Infection control or disease induction? A workshop held at the Liverpool School of Tropical Medicine, Liverpool, UK, 16 April 1993.

ISSN: 0003-4983

- DT Journal
- LA English
- ED Entered STN: 1 Feb 1995 Last Updated on STN: 1 Feb 1995
- AB Tumour necrosis factor-[alpha] (TNF-[alpha]) is an endogenous mediator of shock and inflammation. Many of the life-threatening and severe pathologies associated with complicated and cerebral \*\*\*malaria\*\*\* are thought to result from the overproduction of this cytokine in response to agents of parasite origin. The identification and characterization of these agents may therefore provide the molecular basis for a detailed understanding of the disease process. Recently it has been shown that glycosylphosphatidylinositols are a novel class of glycolipid toxin produced by the parasite, which substitute for the endogenous
  - \*\*\*inositolglycan\*\*\* -based signal transduction pathways of the host. Glycosylphosphatidylinositol stimulates high levels of TNF-[alpha] and interleukin-1 production by macrophages and induces hypoglycaemia through an insulin-mimetic activity, and may therefore contribute to the cerebral syndrome and other malarial pathophysiology. That MAbs to parasite-derived glycosylphosphatidylinositol can neutralize the toxic activities of whole parasite extracts is also demonstrated. These findings suggest a central role for glycosylphosphatidylinositol of parasite origin in the aetiology of severe \*\*\*malaria\*\*\* and suggest novel approaches for the immunotherapy or immunoprophylaxis of disease.
- TI Neutralizing monoclonal antibodies to glycosylphosphatidylinositol, the dominant TNF-[alpha]-inducing toxin of \*\*\*Plasmodium\*\*\* falciparum: prospects for the immunotherapy of severe \*\*\*malaria\*\*\* .
- AB . . . is an endogenous mediator of shock and inflammation. Many of the life-threatening and severe pathologies associated with complicated and cerebral \*\*\*malaria\*\*\* are thought to result from the overproduction of this cytokine in response to agents of parasite origin. The identification and. . . been shown that glycosylphosphatidylinositols are a novel class of glycolipid toxin produced by the parasite, which substitute for the endogenous \*\*\*inositolglycan\*\*\* -based signal transduction pathways of the host. Glycosylphosphatidylinositol stimulates high levels of TNF-[alpha] and interleukin-1 production by macrophages and

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induces hypoglycaemia. . . extracts is also demonstrated. These findings suggest a central role for glycosylphosphatidylinositol of
     parasite origin in the aetiology of severe ***malaria*** and suggest
     novel approaches for the immunotherapy or immunoprophylaxis of disease.
    Protozoa; invertebrates; animals; Haemospororida; Apicomplexa;
BT
       ***Plasmodium*** ; Plasmodiidae; Homo; Hominidae; Primates; mammals;
     vertebrates; Chordata
CT
     human diseases; immunotherapy; monoclonal antibodies; tumour necrosis
     factor; cerebral ***malaria*** ; parasites
     {\tt severe} \quad {\tt ***malaria***} \quad \textit{;} \quad {\tt glycosylphosphatidylinositol}
ORGN Apicomplexa; Plasmodiidae; ***Plasmodium*** falciparum; man; protozoa
=> s 15 and insufficient
             0 L5 AND INSUFFICIENT
=> s 15 and (lipidic domain?)
              0 L5 AND (LIPIDIC DOMAIN?)
=> s GPI and (lipidic domain?)
```

0 GPI AND (LIPIDIC DOMAIN?)